

**SITE SS-006
AEROSPACE GROUND
EQUIPMENT FACILITY
SOIL OPERABLE UNIT**

RECORD OF DECISION

***Plattsburgh Air Force Base
Installation Restoration
Program***



prepared for:

**United States Department of The Air Force
Plattsburgh Air Force Base
Plattsburgh, New York**

**Final
March 1998**

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PLATTSBURGH, NEW YORK**

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**UNITED STATES DEPARTMENT OF THE AIR FORCE
INSTALLATION RESTORATION PROGRAM**

Prepared By:

URS GREINER, INC.

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DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Plattsburgh Air Force Base (AFB)
Site SS-006 Aerospace Ground Equipment (AGE) Facility
Plattsburgh, New York

STATEMENT OF BASIS AND PURPOSE

This Record of Decision (ROD) presents a selected remedial action for soil at site SS-006 on Plattsburgh Air Force Base (AFB) in Plattsburgh, New York. It has been developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the Administrative Record for this site, a copy of which is located at the Information Repository at the Feinburg Library on the campus of the State University of New York at Plattsburgh.

The remedy has been selected by the United States Air Force (USAF) in conjunction with the United States Environmental Protection Agency (USEPA) and with the concurrence of the New York State Department of Environmental Conservation (NYSDEC) pursuant to the Federal Facilities Agreement among the parties under Section 117(a) of CERCLA, dated September 12, 1991.

ASSESSMENT OF THE SITE

Contaminants in Site SS-006 soils present as a result of surface spills and potential tank leaks at SS-006 pose no significant threats to human or ecological health under current and planned future non-residential land use scenarios. Principle future threats at Site SS-006 include a potential for groundwater contaminant concentrations to increase beneath the site as a result of the upgradient FT-002 groundwater contaminant plume and an unevaluated potential risk from surface soil that could be present for land uses other than the current and planned future non-residential use.

DESCRIPTION OF THE REMEDY

This action addresses the principal threats posed at SS-006 by preventing endangerment to human health and the environment, through institutional controls that limit the use of the site to non-residential land use and that prohibit the installation of any wells for drinking water or any other purposes that may result in the use of the underlying groundwater. Institutional controls will be implemented through lease and deed restrictions. An evaluation of the institutional controls will be undertaken during reviews of the remedy, to be undertaken between the USAF, USEPA, and NYSDEC every five years following ROD execution.

The result of the soil and groundwater sampling conducted at the site indicate that the soils at SS-006 are not a source of groundwater contamination. Therefore, groundwater monitoring is not included in the USAF's recommended alternative. Rather, groundwater remedial actions, including monitoring, will be specified in the preferred alternative for the Fire Training Area (FT-002)/Industrial Area Groundwater Operable Unit (FTA/IA GOU).

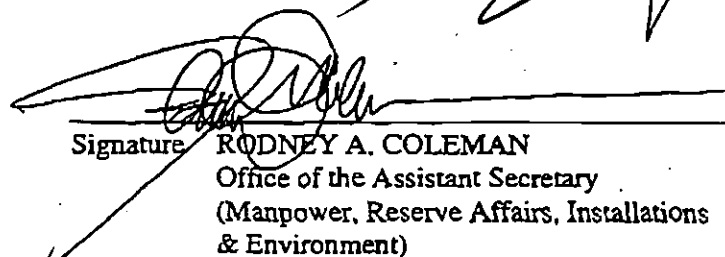
STATUTORY DETERMINATIONS

The selected remedy for the SS-006 soil operable unit is protective of human health and the environment, complies with federal and state Applicable or Relevant and Appropriate Requirements and is cost-effective. Treatment of the soil is considered impractical as risks to human health and the environment are within acceptable levels under the current and planned future land use scenarios. Consequently, the remedy does not satisfy the statutory preference for treatment as a principle element of remediation.

Because this remedy will result in hazardous substances remaining on site, the USAF, USEPA, and NYSDEC will conduct site reviews every five years to ensure that the institutional control remedy continues to provide adequate protection of human health and the environment.


Signature (USEPA, Regional Administrator)

4/2/98
Date


Signature RODNEY A. COLEMAN
Office of the Assistant Secretary
(Manpower, Reserve Affairs, Installations
& Environment)

31 March 1998
Date

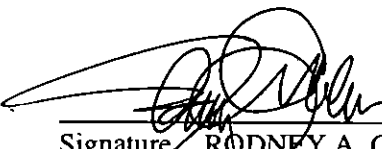
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Signature (USEPA, Regional Administrator)

Date



Signature RODNEY A. COLEMAN
Office of the Assistant Secretary
(Manpower, Reserve Affairs, Installations
& Environment)

31 March 1998

Date

1.0 SITE NAME, LOCATION, AND DESCRIPTION

Plattsburgh AFB, located in Clinton County in northeastern New York State, is bordered on the north by the City of Plattsburgh and the Saranac River, on the west by Interstate 87, on the south by the Salmon River, and on the east by Lake Champlain. It lies approximately 26 miles south of the Canadian border and 167 miles north of Albany, New York (Figure 1). Plattsburgh AFB was closed on September 30, 1995 as part of the (third round of) base closures mandated under the Defense Base Closure and Realignment Act (DBCRA, commonly referred to as BRAC)) of 1990, and its reuse is being administered by the Plattsburgh Airbase Redevelopment Corporation (PARC). According to land use plans presented in the Environmental Impact Statement (Tetra Tech 1995) for disposal and reuse of the base, the likely reuse at SS-006 and its surrounding area will be aviation support (industrial).

As part of the USAF's IRP and the BRAC Program, Plattsburgh AFB has initiated activities to identify, evaluate, and restore identified hazardous waste sites. The IRP at Plattsburgh AFB is being implemented according to a Federal Facilities Agreement Docket No. II-CERCLA-FFA-10201, signed between the USAF, USEPA and NYSDEC on September 12, 1991. Plattsburgh AFB was placed on the National Priorities List (NPL) on November 21, 1989.

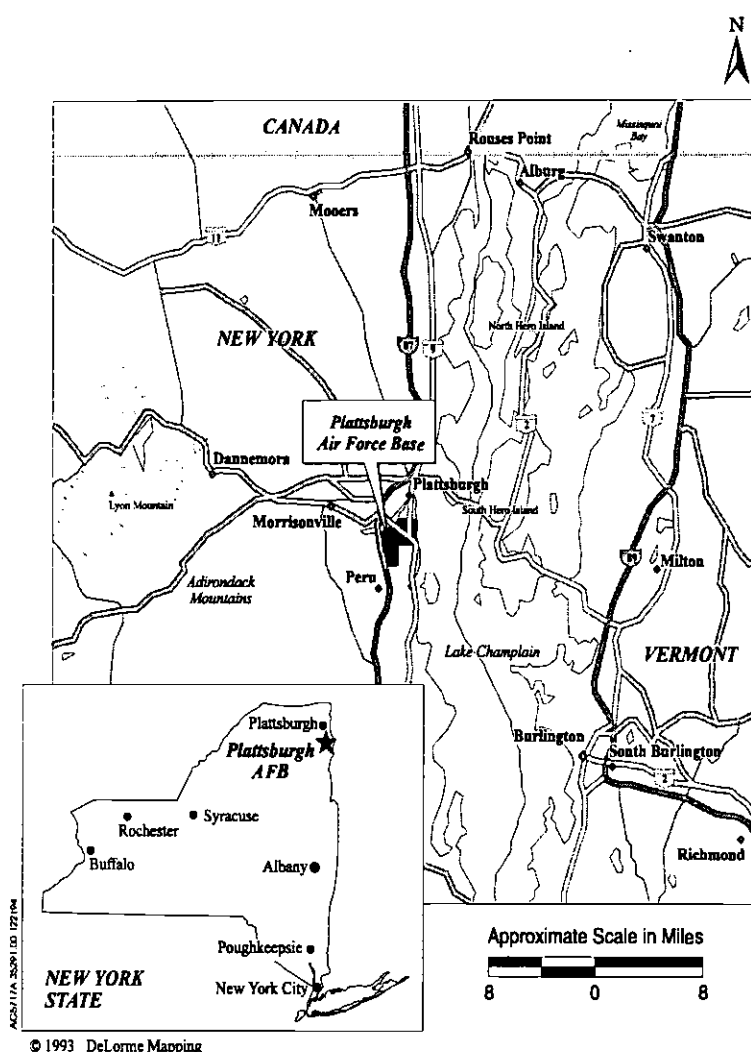


FIGURE 1: PLATTSBURGH AFB VICINITY LOCATION MAP

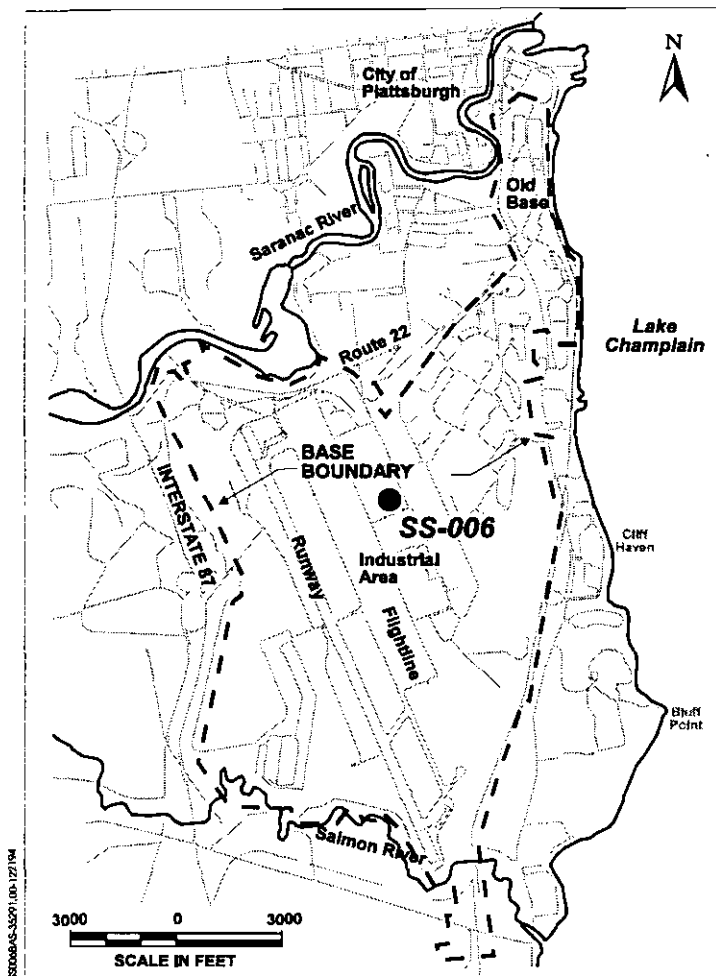


FIGURE 2: LOCATION OF SS-006

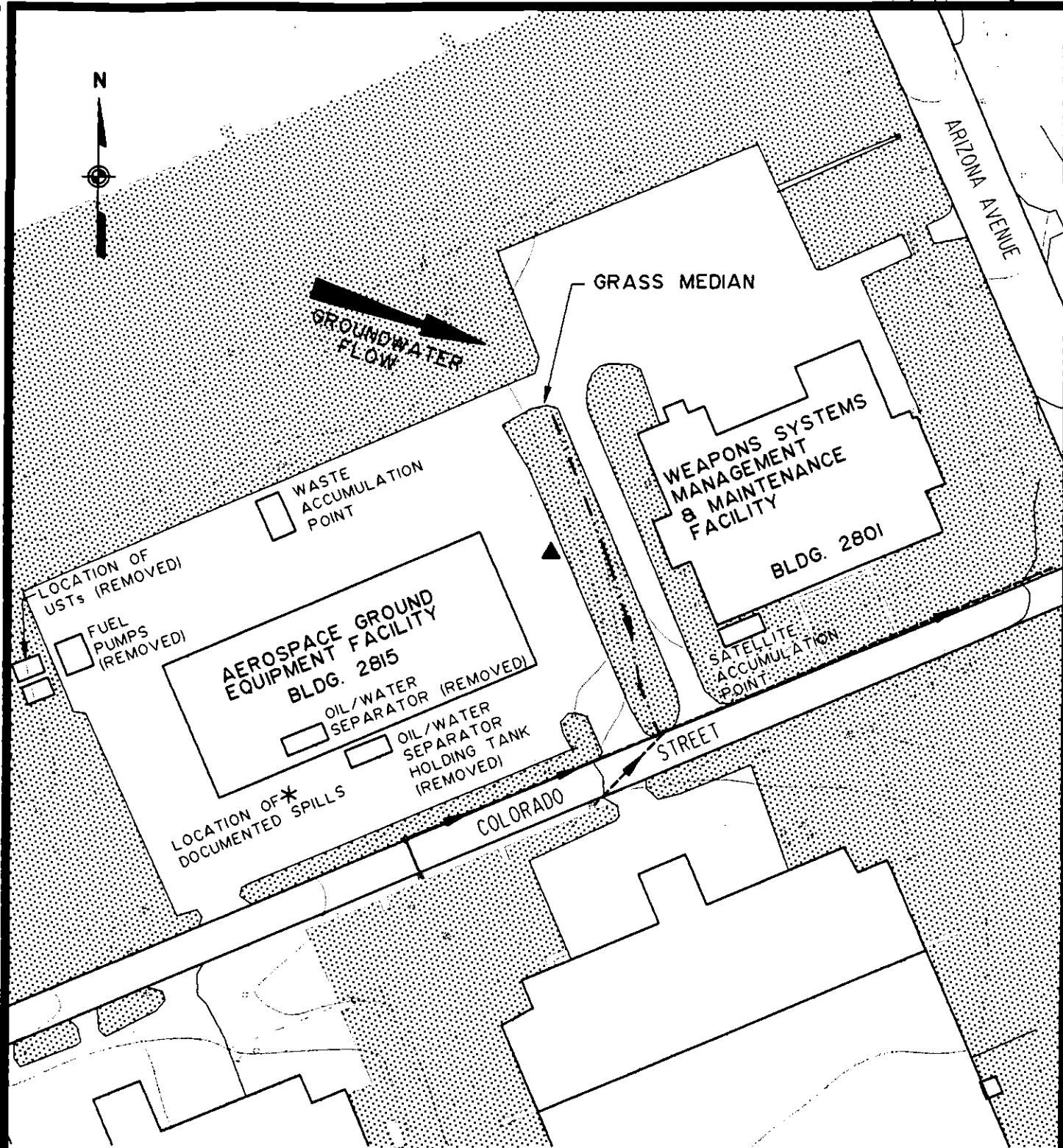
on the southern end of this swale. Because of the relatively low concentrations of contaminants in surface soils at site SS-006, contamination is not expected to migrate away from the site via this surface drainage pathway. Site features are shown on Figure 3.

One of the hazardous waste accumulation points on the base was located within Site SS-006. This prefabricated steel storage area, situated to the north of the AGE, accepted hazardous waste from satellite accumulation points at the AGE and at Building 2801 from 1989 until the base closed in 1995. There were no reported spills at this storage area, which was situated on pavement and included built-in secondary containment. The accumulation point was the collection area for 140 solvents, mineral oil (non-hazardous), antifreeze, hydraulic fluid, synthetic oil, and EAK/mercury batteries. Generated hazardous waste was accumulated in 55-gallon drums and smaller containers. The non-hazardous mineral oils and hydraulic fluids were collected in two 350-gallon polyethylene containers. The waste accumulation point was closed by PAFB's Environmental Compliance Section on September 30, 1995 and was not part of the RCRA Part B Permit. The accumulation shed has been decontaminated. In addition, two 5,000-gallon underground storage tanks, reportedly used to store diesel fuel, formerly were located west of the AGE, and a former oil/water separator was located near

The former Aerospace Ground Equipment Facility (AGE) is located in Building 2815 in the east-central portion of Plattsburgh AFB, approximately 600 feet east of the flightline (Figure 2). Colorado Street borders the site to the south. The Weapons Systems Management and Maintenance Facility (Building 2801), considered part of site SS-006, lies to the east.

The AGE Building 2815 was constructed in 1980 and was utilized for the maintenance and repair of ground power carts. The power carts were utilized on the flightline to provide electrical and pneumatic power to parked aircraft. Building 2801 was constructed in 1956 and housed the Precision Measurement Equipment Laboratory (PMEL) and other flightline related offices. The PMEL calibrated tools utilized in the maintenance of the aircraft.

A drainage swale is located on the grassy median between the AGE and Building 2801. Runoff from the site enters the storm sewer system through catch basins located



the southern wall of the AGE. A former 550-gallon underground holding tank is associated with this separator. Former filling pumps also were located at the AGE. NYSDEC Region V spill response personnel have been overseeing all UST and oil/water separator removals and reviewing all closure reports. Approval of the closure reports by NYSDEC is still pending as of the date of this ROD.

A former waste accumulation point was historically located at the site, although its precise location could not be verified during record searches conducted at PAFB. It is believed that it was located in or near the swale between the AGE and Building 2801 (Figure 3).

Two approximately 30-gallon JP-4 fuel spills, occurring in 1989 and 1991 south of the AGE, are recorded on the NYSDEC Oil and Hazardous Material Spill Register. Although the spills were remediated as soon as they occurred, the presence of stained soils in the swale between the AGE and Building 2801 suggests that other spills may have occurred at SS-006.

Intrusive field investigations at SS-006 were limited to drilling down to the marine/lacustrine silt and clay unit. A unit of marine/lacustrine sand which grades to sandy silt lies above the silt and clay unit and is approximately 39 feet thick. Groundwater in this area is shallow, approximately 4 feet below ground surface, and flows east to southeast towards the Golf Course Drainage Area with eventual discharge to Lake Champlain.

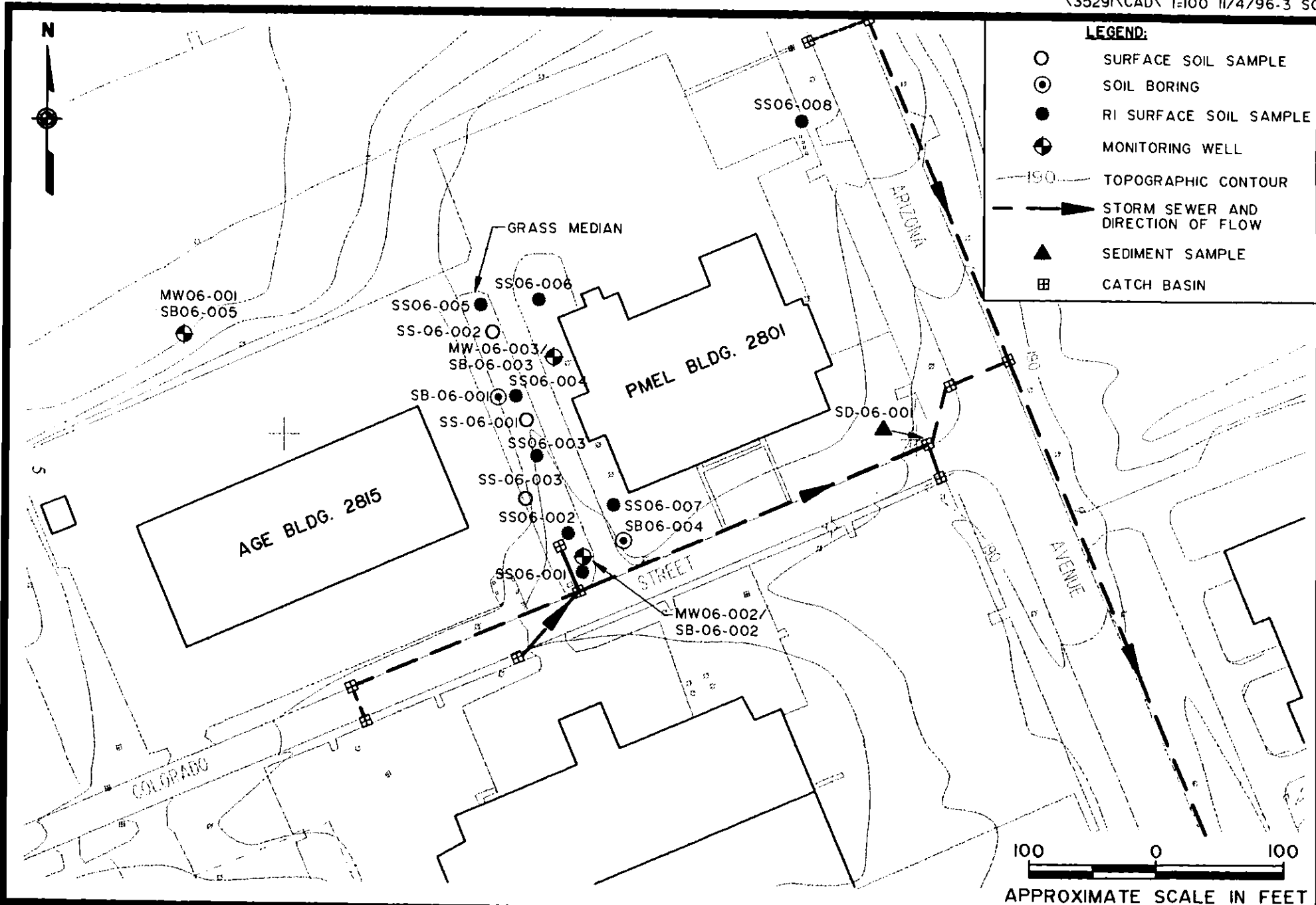
2.0 LAND USE AND RESPONSE HISTORY

The site inspection (SI) of the AGE conducted in 1987 consisted of a records search, a soil organic vapor (SOV) survey, and the collection of three surface soil samples from stained soil locations (E. C. Jordan Co., 1989). Although significant SOV concentrations were not detected, soil samples contained elevated levels of acetone and petroleum hydrocarbons (PHCs).

Between October 1992 and February 1995, an RI was performed at SS-006 to characterize the magnitude and extent of groundwater and soil contamination at the site. The RI included the sampling of surface soil at nine locations and subsurface soils at three boring locations. Limited hydropunch groundwater grab samples were taken in the area of the swale and are discussed in Section 5.3. In addition, three monitoring wells were installed and groundwater was sampled during sampling events in January and April 1993. Sampling locations (Figure 4) were concentrated near a drainage swale running between the AGE and Building 2801 in a grassy median near the probable location of the former waste accumulation point. One sediment sample was taken from the catch basin shown in Figure 4. The analytical results from the sampled media are presented in Section 5.0 and were used to assess the current and potential future human and ecological health risks under an industrial setting due to onsite contaminants.

3.0 COMMUNITY PARTICIPATION

Plattsburgh AFB has kept the community and other interested parties informed of activities at SS-006 through informational and public meetings, holding a 30-day public comment period from February 17 to March 18, 1997 to solicit public input. During this period, the public was invited to review the Proposed Plan, the Attachment I Sites Remedial Investigation (SS-006 is one of the Attachment I sites addressed by the Federal Facilities Agreement) and to comment on the preferred alternative being considered. These documents, which comprise the Administrative Record for the SS-006 site, are available at the Information Repository located at the Feinberg Library.



Plattsburgh AFB hosted a public meeting on February 26, 1998 at the Old Court House, Second Floor Meeting Room, 133 Margaret Street to discuss data gathered at the site, the preferred alternative, and the decision-making process. Public comments were recorded and transcribed, and a copy of the transcript was added to the Administrative Record and Information Repository, and is part of this ROD (Appendix A). The Air Force's response to all written comments received during the public comment period and to all verbal comments made by the public at the public comment meeting is contained in the Responsiveness Summary located in Appendix B of this ROD.

The Air Force, USEPA, and the NYSDEC have reviewed the Public Meeting Transcript and Responsiveness Summary presented in this ROD. It has been determined that no significant changes to the remedy, as it was originally presented in the Proposed Plan, were necessary.

4.0 SCOPE AND ROLE OF RESPONSE ACTION

Chemical contaminants are present at relatively low levels in both soil and groundwater at SS-006. Based on the industrial human health risk assessment (HRA) and ecological risk results, these chemicals do not pose a significant threat to human health or the environment.

Principle future threats at Site SS-006 include a potential for groundwater contaminant concentrations to increase beneath the site as a result of the upgradient FT-002 groundwater contaminant plume and an unevaluated potential risk from surface soil that could be present for land uses other than the current and planned future non-residential use. These principle threats are addressed by the selected remedy presented in this ROD.

5.0 SUMMARY OF SITE CONTAMINATION

Soil contamination found at Site SS-006 can be evaluated by comparing the results to other criteria, advisories, and guidance values known as To-Be-Considered (TBC) values. The levels of contamination from organic compounds in soil (both surface and subsurface soil) were evaluated by comparing the detected concentrations to guidance values specified in the *Technical Administrative Guidance Memorandum* (TAGM) #4046 entitled, "Determination of Soil Cleanup Objectives and Cleanup Levels" (NYSDEC 1994). As recommended by TAGM #4046, levels of contamination from inorganic compounds in soil were evaluated by comparing the detected concentrations to site background levels (URS 1995).

For groundwater, contamination levels were compared to groundwater applicable or relevant and appropriate requirements (ARARs), which are derived from the NYSDEC water quality standards and guidance values specified in NYSDEC *Technical and Operational Guidance Series (TOGS) 1.1.1* (October 1993), New York State water standards (Title 6 of New York State Rules and Regulations, Part 703), New York State Department of Health Drinking Water Standards (Subpart 5-1 of the New York State Sanitary Code), and USEPA drinking water standards (40 CFR 141). The concentrations of metals in groundwater at the site were also compared to basewide background metal concentrations in groundwater.

5.1 Surface Soil Contamination

Tables 1 and 2 and Figures 5A, 5B, 6A, and 6B present a summary of the levels of contamination found in the SS-006 surface soil and a comparison to the guidance thresholds described

TABLE 1

**SUMMARY OF ORGANIC COMPOUNDS DETECTED AT SS-006
LEVEL III AND IV SURFACE AND SUBSURFACE SOILS**

ANALYTE	TYPE	GUIDANCE VALUES* (µg/kg)	SURFACE SOILS				SUBSURFACE SOILS			
			FREQUENCY OF DETECTION	DETECTED MINIMUM CONCENTRATION (µg/kg)	DETECTED MAXIMUM CONCENTRATION (µg/kg)	DETECTED FREQUENCY ABOVE TBCs	FREQUENCY OF DETECTION	DETECTED MINIMUM CONCENTRATION (µg/kg)	DETECTED MAXIMUM CONCENTRATION (µg/kg)	DETECTED FREQUENCY ABOVE TBCs
Acetone	VOC	200	0/11	--	--	0/11	1/1	17	17	0/1
Acenaphthylene	SVOC	41,000	1/11	1	1	0/11	0/5	--	--	0/5
Benzoic Acid	SVOC	NS	3/11	16	88	0/11	1/5	33	33	0/5
Phenanthrene	SVOC	50,000	6/11	23	60	0/11	0/5	--	--	0/5
Carbazole	SVOC	NS	2/11	5	25	0/11	0/5	--	--	0/5
Fluoranthene	SVOC	50,000	8/11	26	69	0/11	1/5	20	20	0/5
Pyrene	SVOC	50,000	8/11	21	67	0/11	1/5	19	19	0/5
Benzo(a)anthracene	SVOC	224	5/11	17	35	0/11	0/5	--	--	0/5
Chrysene	SVOC	400	7/11	20	42	0/11	0/5	--	--	0/5
bis(2-Ethylhexyl)phthalate	SVOC	50,000	8/11	15	99	0/11	0/5	--	--	0/5
Di-n-octylphthalate	SVOC	50,000	0/11	--	--	0/11	2/5	6	7	0/5
Benzo(b)fluoranthene	SVOC	1,100	7/11	21	45	0/11	0/5	--	--	0/5
Benzo(k)fluoranthene	SVOC	1,100	7/11	16	38	0/11	0/5	--	--	0/5
Benzo(a)pyrene	SVOC	61	7/11	18	41	0/11	0/5	--	--	0/5
Indeno(1,2,3-cd)pyrene	SVOC	3,200	4/11	16	24	0/11	0/5	--	--	0/5
Benzo(g,h,i)perylene	SVOC	50,000	4/11	16	21	0/11	0/5	--	--	0/5
4,4'-DDD	PEST	2,900	1/1	0.71	0.71	0/1	0/5	--	--	0/5

-- Indicates analyte not detected

* Values from NYSDEC Soil Cleanup Objectives and Cleanup Levels, TAGM HWR-94-4046, January 1994 unless otherwise indicated.

SVOC = Semivolatile Organic Compound

PEST = Pesticide

NS = Not Specified

 - Exceeds Guidance Value

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TABLE 2

**SUMMARY OF INORGANIC COMPOUNDS DETECTED IN SS-006
LEVEL III AND IV SURFACE AND SUBSURFACE SOILS**


ANALYTE	TYPE	GUIDANCE VALUES* (mg/kg)	SURFACE SOILS				SUBSURFACE SOILS			
			FREQUENCY OF DETECTION	DETECTED MINIMUM CONCENTRATION (mg/kg)	DETECTED MAXIMUM CONCENTRATION (mg/kg)	DETECTED FREQUENCY ABOVE TBCs	FREQUENCY OF DETECTION	DETECTED MINIMUM CONCENTRATION (mg/kg)	DETECTED MAXIMUM CONCENTRATION (mg/kg)	DETECTED FREQUENCY ABOVE TBCs
Aluminum	MET	8,510 †	11/11	1,969	4,274	0/11	6/6	1,020	3,437	0/6
Arsenic	MET	7.5	2/11	0.44	1	0/11	1/6	0.57	0.57	0/6
Barium	MET	300	2/11	9.9	10.4	0/11	1/6	4.2	4.2	0/6
Cadmium	MET	1.3 †	1/11	0.58	0.58	0/11	0/6	--	--	0/6
Calcium	MET	30,200 †	8/11	736	5,026	0/11	5/6	583	10254	0/6
Chromium	MET	19.5 †	11/11	3	13.0	0/11	6/6	3	13	0/6
Cobalt	MET	30	2/11	1.5	1.5	0/11	1/6	0.97	0.97	0/6
Copper	MET	41.1 †	2/11	5	2.6	0/11	1/6	4.3	4.3	0/6
Iron	MET	36,700 †	11/11	3,021	23,504	0/11	6/6	2,600	5,497	0/6
Lead	MET	79.4 †	4/11	16.3	29.0	0/11	2/6	2.5	18	0/6
Magnesium	MET	3,340 †	5/11	670	1,122	0/11	4/6	540	1015	0/6
Manganese	MET	474 †	11/11	36	160	0/11	6/6	18	64	0/6
Nickel	MET	13	3/11	2.4	7	0/11	1/6	1.8	1.8	0/6
Potassium	MET	929 †	2/11	143	246	0/11	1/6	254	25	0/6
Sodium	MET	520 †	2/11	27.1	28.9	0/11	1/6	26.6	26.6	0/6
Vanadium	MET	150	5/11	10.4	36	0/11	3/6	3.5	11	0/6
Zinc	MET	63.4 †	10/11	5	37	0/11	6/6	5.3	213	1/6

-- Indicates analyte not detected

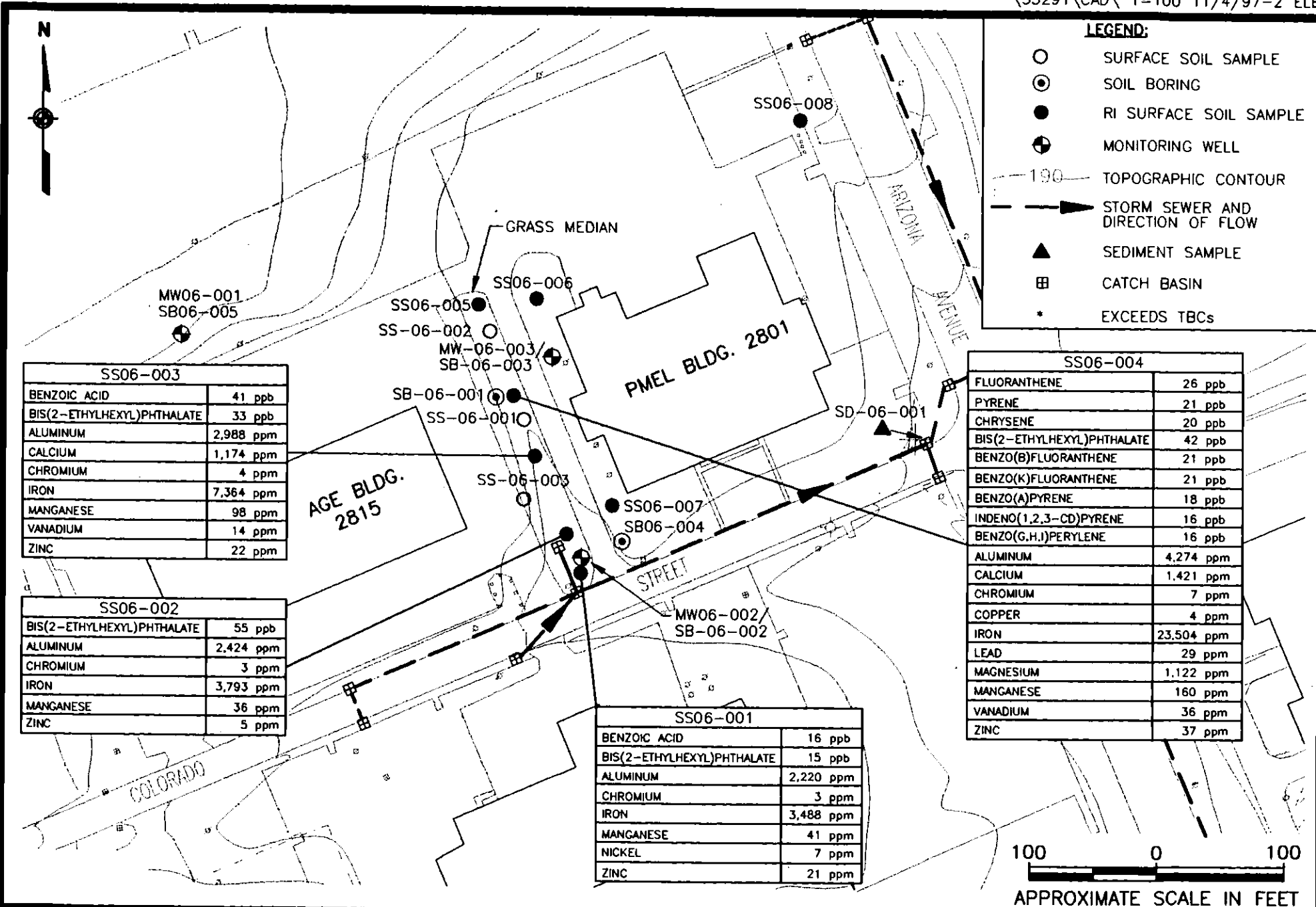
* Values from NYSDEC Soil Cleanup Objectives and Cleanup Levels, TAGM HWR-94-4046, January 1994 unless otherwise indicated.

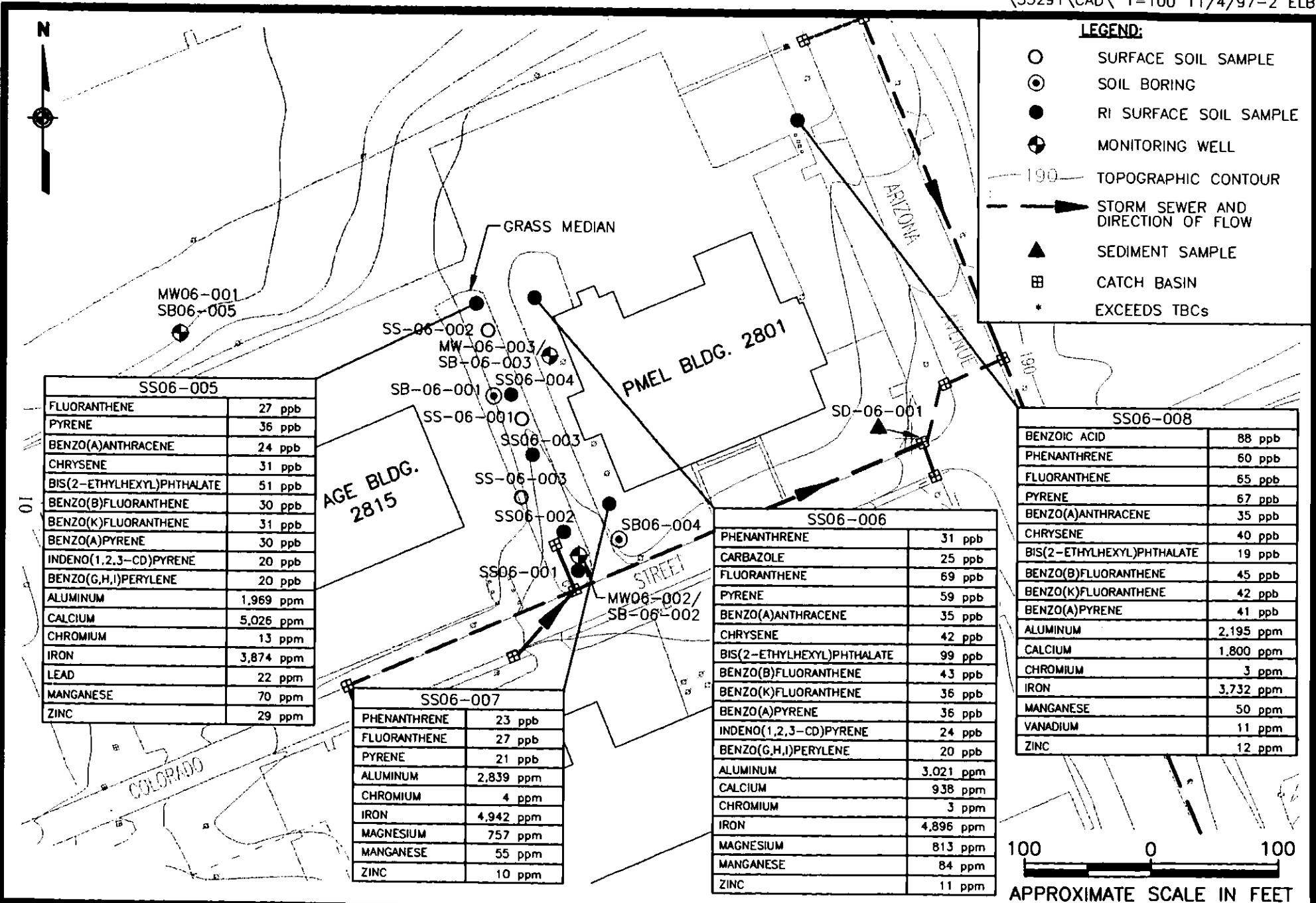
† Soil background "To Be Considered" (TBC) value from "Background Surface Soil & Groundwater Survey for the Plattsburgh Air Force Base" (URS, 1995).

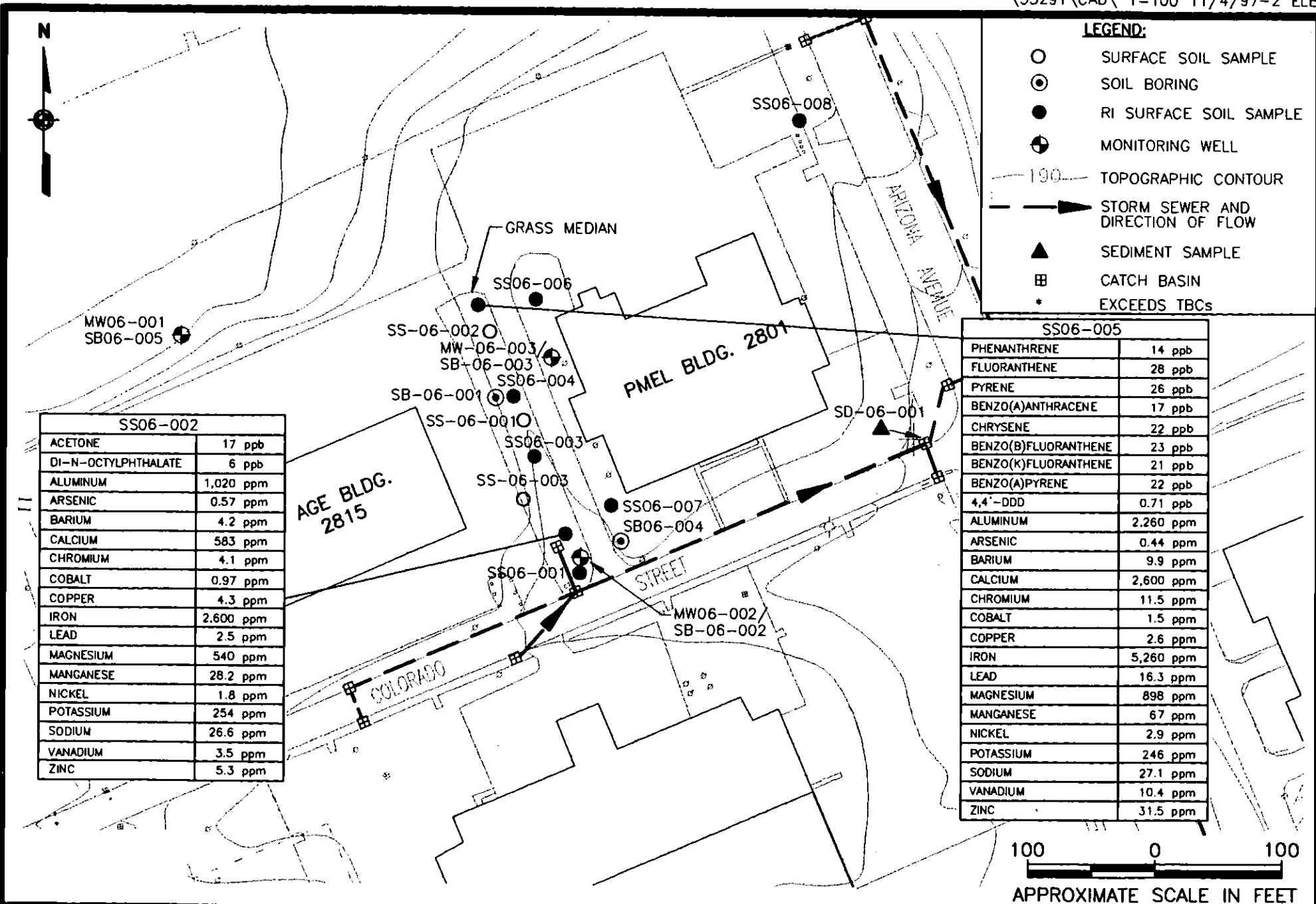
MET = Metal

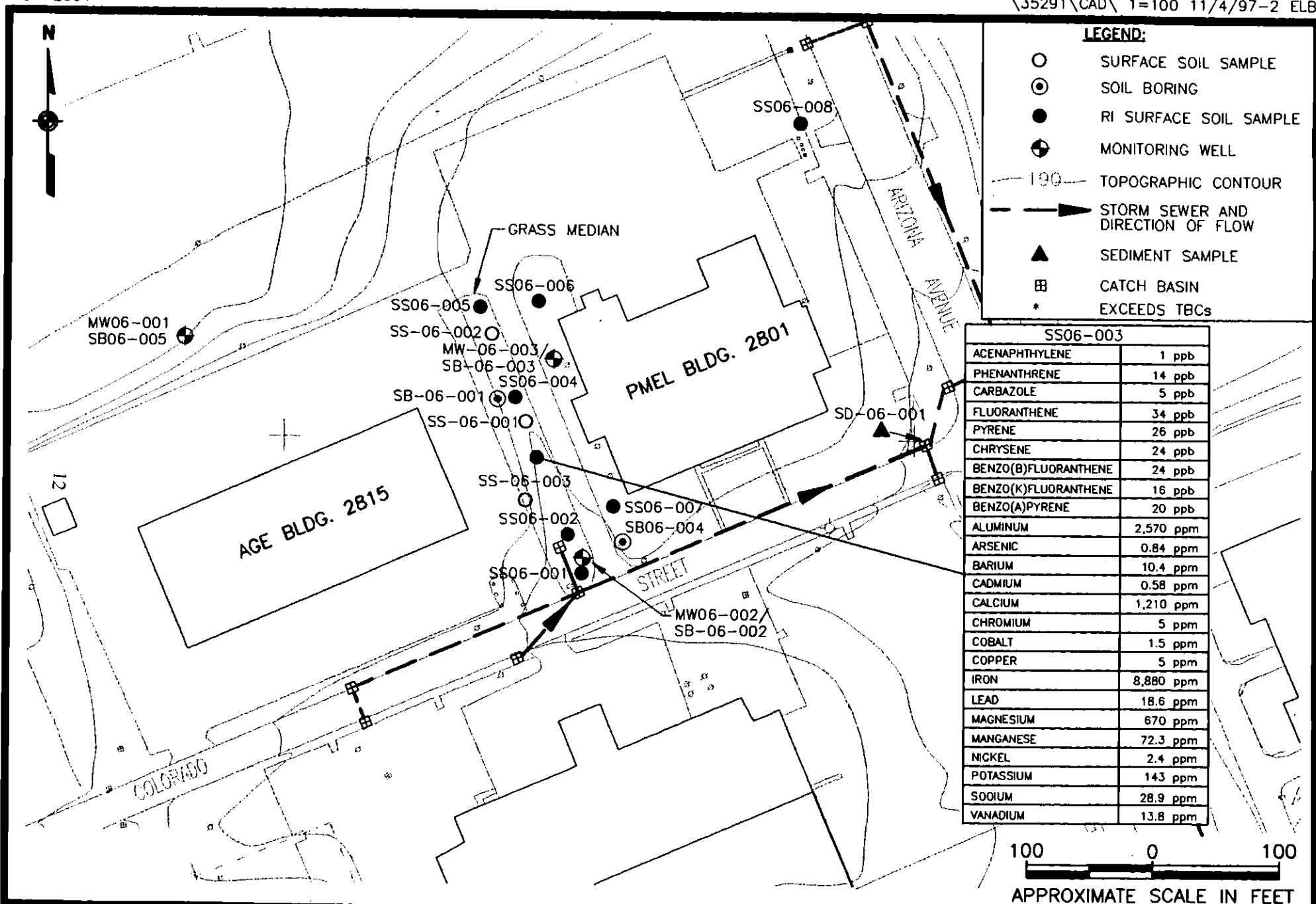
 - Exceeds Guidance Value

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in Section 5.0. No volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), or metals were present above their respective guidance values.

5.2 Subsurface Soil Contamination

Subsurface soil samples were collected between 2 and 7 feet below ground surface (bgs). In general, VOCs and SVOCs were detected infrequently in the subsurface soil samples. Tables 1 and 2 present a summary of the levels of contamination found in the SS-006 subsurface soil and a comparison to the respective soil guidance values (see Section 5.0). No VOCs, SVOCs, pesticides, or PCBs were present above guidance thresholds. However, one metal (zinc) exceeded the guidance value for one of five subsurface soil samples. This sample was taken from the southern part of the grassy median between the AGE and Building 2801.

5.3 Sediment Contamination

One sediment sample was collected from the catch basin shown in Figure 4. None of the detected results from this sample were above the TBCs.

5.4 Groundwater Contamination

A summary of the groundwater analytical results compared to their respective ARARs is given in Table 3 and Figure 7. For the monitoring well groundwater samples, VOCs and SVOCs were found infrequently, and only one VOC (trichloroethene) exceeded its ARAR threshold for the first round of sampling. Trichloroethene was not found in any of the monitoring well samples from the second sampling event. Three metals (aluminum, iron, and manganese) were detected in groundwater at concentrations above their respective ARAR values. However, these metals were not detected in either the groundwater or soils at SS-006 above site background levels.

For the less reliable hydropunch groundwater samples, seven VOCs (chlorobenzene, chloroform, 1,2-dichloroethene, ethylbenzene, toluene, trichloroethene, and xylenes) and eight SVOCs [benzo(a)anthracene, benzo(b)fluor-anthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, chrysene, bis(2-ethylhexyl)phthalate, and phenol] exceeded ARAR thresholds. The monitoring well and hydropunch compounds that exceeded the ARARs were not detected above background concentrations in the soils at SS-006. The hydropunch groundwater samples with VOC and SVOC ARAR exceedances were taken from the southern and southeastern part of the grassy median area between the AGE and Building 2801.

An evaluation of the analytical results for Site SS-006 soils indicates that the organic contamination in groundwater at the site did not originate from SS-006. Rather, groundwater beneath Site SS-006 is within the contamination plume emanating from site FT-002, and the organic groundwater contamination detected here is attributable to that plume. The soils at Site SS-006, therefore, do not appear to be a source of groundwater contamination at the site.

6.0 SUMMARY OF SITE RISKS

During the RI, a baseline industrial use Health Risk Assessment (HRA) was conducted to estimate the current and future risks at the site if no remedial action was taken. Possible human health

1152 20

TABLE 3

CHARACTER OF GROUNDWATER CONTAMINATION

ANALYTE	TYPE	ARAR VALUE (µg/L)	FREQUENCY OF DETECTION	MONITORING WELL MAXIMUM CONCENTRATION (µg/L)	HYDROPUNCH MAXIMUM CONCENTRATION (µg/L)
Acetone	VOC	50.0 *	2/26	--	4
Bromodichloromethane	VOC	50 *	1/26	--	2
Chlorobenzene	VOC	5.0 *	1/26	--	15
Chloroform	VOC	7.0 *	3/26	--	33
1,2-Dichloroethene	VOC	5.0 *	1/26	--	28
Ethylbenzene	VOC	5.0 *	1/26	--	15
Toluene	VOC	5.0 *	5/26	0.2	12
Trichloroethene	VOC	5.0 *	4/26	10	11
Xylenes	VOC	5.0 *	2/26	--	85
Acenaphthene	SVOC	20 *	1/26	--	0.3
Phenanthrene	SVOC	50 *	3/26	--	4
Anthracene	SVOC	5.0 *	2/26	--	0.8
Carbazole	SVOC	NR	1/26	--	2
Fluoranthene	SVOC	50 *	4/26	--	10
Pyrene	SVOC	50 *	4/26	0.1	12
Benzo(a)anthracene	SVOC	0.002 *	2/26	--	7
Benzo(b)fluoranthene	SVOC	0.002 *	1/26	--	5
Benzo(k)fluoranthene	SVOC	0.002 *	1/26	--	4
Benzo(a)pyrene	SVOC	0.002 *	1/26	--	5
Indeno(1,2,3-cd)pyrene	SVOC	0.002 *	1/26	--	4
Chrysene	SVOC	0.002 *	2/26	--	8
Di-n-octylphthalate	SVOC	50 *	2/26	--	0.9
Dibenz(a,h)anthracene	SVOC	50 *	1/26	--	0.9
4-Chloro-3-methylphenol	SVOC	5.0 *	1/26	0.1	--
4-Nitroaniline	SVOC	5.0 *	1/26	--	2
4-Methylphenol	SVOC	50 *	3/26	--	3
bis(2-Chloroethoxy)methane	SVOC	NR	2/26	--	6
Naphthalene	SVOC	10 *	1/26	--	0.7
2,4-Dinitrotoluene	SVOC	5.0 *	1/26	--	1.0
Phenol	SVOC	1.0 *	2/26	--	2
Benzoic Acid	SVOC	NR	5/26	--	2
2-Methylnaphthalene	SVOC	50 *	2/26	--	0.7
Benzo(g,h,i)perylene	SVOC	5.0 *	1/26	--	4
Butylbenzylphthalate	SVOC	50 *	2/26	0.4	6
Diethylphthalate	SVOC	50 *	4/26	0.3	1.0
Di-n-butylphthalate	SVOC	50 *	10/26	1	0.8
bis(2-Ethylhexyl)phthalate	SVOC	50 *	17/26	4	86

* - NYSDEC Water Quality Standards (6 NYCRR 703).

** - USEPA Drinking Water Standards 40 CFR 141

*** - USEPA Secondary Maximum Contaminant Levels 40 CFR 143

- Exceeds Guidance Value

NR = Not Regulated

VOC = Volatile Organic Compound

SVOC = Semivolatile Organic Compound

-- Indicates analyte not detected

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TABLE 3 (cont'd)

CHARACTER OF GROUNDWATER CONTAMINATION

ANALYTE	TYPE	ARAR VALUE (µg/L)	FREQUENCY OF DETECTION	MONITORING WELL MAXIMUM CONCENTRATION (µg/L)
Aluminum	METAL	50 to 200***	6/6	2,520
Arsenic	METAL	25 *	1/6	1
Barium	METAL	1,000 *	6/6	42.7
Calcium	METAL	NR	6/6	92,700
Chromium	METAL	50 *	1/6	4.1
Cobalt	METAL	NR	3/6	3.6
Copper	METAL	200 *	6/6	9
Iron	METAL	300 *	6/6	5,470
Lead	METAL	15 **	5/6	5.4
Magnesium	METAL	35,000 *	6/6	15,700
Manganese	METAL	50 ***	6/6	1,910
Potassium	METAL	NR	6/6	5,070
Silver	METAL	50 *	1/6	4
Sodium	METAL	20,000 *	6/6	15,100
Vanadium	METAL	NR	4/6	18.2

* - NYSDEC Water Quality Standards (6 NYCRR 703).

** - USEPA Drinking Water Standards 40 CFR 141

*** - USEPA Secondary Maximum Contaminant Levels 40 CFR 143

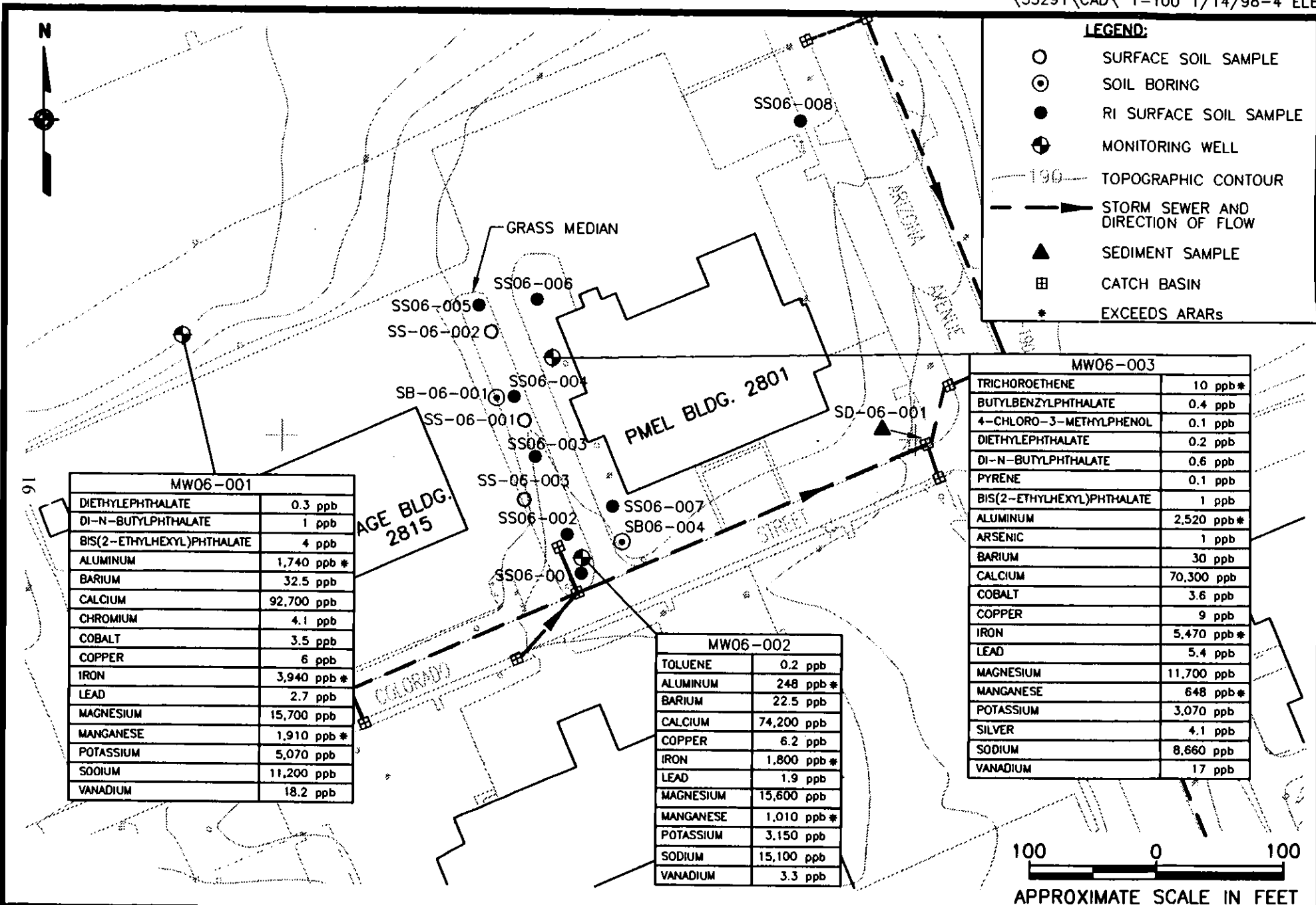
- Exceeds Guidance Value

NR = Not Regulated

VOC = Volatile Organic Compound

SVOC = Semivolatile Organic Compound

-- Indicates analyte not detected



and ecological risks were evaluated. Due to their close proximity and potentially overlapping areas of contamination, sites SS-005 (the Non-destructive Inspection Facility Soil Operable Unit) and SS-006 were evaluated as one area. Chemicals of potential concern (CPCs) for the two sites (Table 4) were chosen based on frequency of detection, chemical-specific toxicity information, and exceedance of background levels (for inorganics only).

6.1 Human Health Risk Assessment

Five steps are followed in assessing site-related human health risks: *Hazard Identification* - determines the chemicals of concern at the site based on toxicity, frequency of occurrence, and concentration. *Exposure Assessment* - estimates the magnitude of actual and/or potential human exposures, and the pathways (e.g., dermal contact with soil) by which humans potentially are exposed. *Toxicity Assessment* - determines adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response). *Risk Characterization* - summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks. *Uncertainty Analysis* - qualifies the quantitative results of the risk assessment based upon the uncertainty associated with the assumptions made in the analysis. Generally, assumptions made in the assessment process are conservative and yield a reasonable overestimation, rather than an underestimation of risk.

The human HRA follows federal guidelines to estimate the potential carcinogenic (i.e., cancer-causing) and adverse noncarcinogenic health effects due to potential exposure to site contaminants of concern from assumed exposure scenarios and pathways. These guidelines consider an excess upper bound lifetime cancer risk to an individual to be acceptable if it is calculated to be less than one-in-one million (10^{-6}), and risks in the range of one-in-ten thousand (10^{-4}) to one-in-one million are evaluated on a case by case basis. The guidance also specifies that the maximum health hazard index (which reflects adverse noncarcinogenic effects for a human receptor) be less than or equal to 1.0. The Hazard Index (HI) is a representation of risk based on a quotient or ratio of chronic daily intake to a reference (safe) dose. An HI greater than 1.0 indicates a potential of adverse noncarcinogenic health effects.

Two human exposure scenarios were evaluated as part of the human HRA for site SS-006 and are summarized in Table 5.

A) **Current Scenario** - This scenario assumes that civilian personnel conducting landscape work may come in contact with contaminated soils. Potential routes of exposure for this scenario include incidental ingestion of and dermal contact with surface soil. Because there is no current use of the groundwater at SS-006, there is little likelihood of human contact with the contaminants in this medium under this scenario.

B) **Future Scenario** - This scenario accounts for two potential future activities at the SS-006 site:

Future utility, maintenance or construction activities may result in disrupted soil (e.g., excavation) which potentially could expose utility/construction workers to site contaminants in surface and subsurface soil. This exposure would be similar to that estimated for civilian landscape workers in the current exposure scenario (above) with the additional potential to inhale fugitive dust.

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TABLE 4
CHEMICALS OF POTENTIAL CONCERN FOR SS-005 AND SS-006
GROUNDWATER

ANALYTE	TYPE	GROUNDWATER		
		FREQUENCY OF DETECTION	ARAR VALUE (µg/L)	MAXIMUM CONCENTRATION DETECTED (µg/L)
Benzene	VOC	2/12	0.7	0.2*
Bromodichloromethane	VOC	1/26	50	2.0
Bromoform	VOC	1/12	50	1.0*
Carbon tetrachloride	VOC	1/12	5.0	0.1*
Styrene	VOC	1/12	5.0	0.4*
Trichloroethene	VOC	4/26	5.0	10
Toluene	VOC	5/26	5.0	0.1
bis(2-Ethylhexyl)phthalate	SVOC	17/26	50	4.0
Butylbenzylphthalate	SVOC	2/26	50	0.4
Carbazole	SVOC	1/26	NR	0.1
4-Chloro-3-methylphenol	SVOC	1/26	5.0	0.1
Diethylphthalate	SVOC	4/26	50	0.3
Di-n-butylphthalate	SVOC	10/26	50	1.0
Total PAHs	SVOC	2/26	NR	0.3
Arsenic	METAL	5/12**	25	1.0
Silver	METAL	1/6	50	4.0

VOC = Volatile Organic Compound

SVOC = Semivolatile Organic Compound

PAH = Polyaromatic hydrocarbon

* Not Detected in SS006 samples

** Arsenic was only detected in 1 of 6 groundwater samples for SS006

NR - Not Regulated

TABLE 5

**SUMMARY OF HAZARD INDICES AND CANCER RISKS
PLATTSBURGH AIR FORCE BASE
SITES SS-005 & SS-006**

EXPOSURE POPULATION AND PATHWAY	HAZARD INDEX	CANCER RISK
<i>CURRENT SCENARIO</i>		
CIVILIAN LANDSCAPE WORKER		
Ingestion of Surface Soil	6E-02	1E-05
Dermal Contact with Surface Soil	1E-02	2E-07
TOTAL PATHWAY HAZARD INDEX/CANCER RISK:	7E-02	1E-05
<i>FUTURE SCENARIO</i>		
SITE WORKER		
Ingestion of Subsurface Soil	9E-04	1E-07
Dermal Contact with Subsurface Soil	2E-03	1E-08
Ingestion of Groundwater	2E-01	3E-05
Dermal Contact with Groundwater	3E-04	2E-08
TOTAL PATHWAY HAZARD INDEX/CANCER RISK	2E-01	3E-05
CONSTRUCTION/UTILITY MAINTENANCE WORKER		
Ingestion of Soil	6E-02	4E-07
Dermal Contact with Soil	8E-02	6E-10
Inhalation of Respirable Particulates from Soil	6E-03	3E-07
TOTAL PATHWAY HAZARD INDEX/CANCER RISK	7E-02	7E-07

Future industrial workers at the site could be potentially exposed to surface and subsurface soil after future development of the site through incidental ingestion of and dermal contact with the soil. Ingestion of and dermal contact with groundwater were also evaluated for this scenario.

Given that the site is slated for industrial use (PARC 1995) and the deed/lease will prohibit residential use as specified in this ROD for the site, its development for residential use is unlikely.

For current land use, the total cancer risk for the civilian landscape worker was estimated as 1×10^{-5} , which is within the acceptable risk range established by current USEPA guidelines. For the proposed future industrial land use, the total estimated cancer risks for the site worker and construction/ utility/maintenance worker were 3×10^{-5} and 7×10^{-7} , respectively. These results are within the acceptable USEPA specified range.

For the current land use, the total HI for the civilian landscape worker was estimated to be 0.07. For the proposed future industrial land use, the total HIs for the site worker and construction/utility/ maintenance worker were 0.2 and 0.7, respectively for SS-006. These results are below the acceptable USEPA specified upper limit of 1.

6.2 Ecological Risk Assessment

A four-step process is utilized for assessing site-related ecological risks for a reasonable maximum exposure scenario: *Problem Formulation* - a qualitative evaluation of contaminant release, migration, and fate; identification of CPCs, ecological receptors, exposure pathways, and known ecological effects of the contaminants; and selection of endpoints for further study. *Exposure Assessment* - a quantitative evaluation of contaminant release, migration, and fate; characterization of exposure pathways and receptors; and measurement of the estimation of exposure point concentration. *Ecological Effects Assessment* - literature reviews, field studies, and toxicity tests, linking contaminant concentrations to effects on ecological receptors. *Risk Characterization* - a measurement of estimation of current adverse effects.

Sites SS-005, SS-006, and SS-017 (the Building 2774 Site) were combined for the ecological assessment due to their proximity to each other and their limited areal extent. A screening level ecological risk assessment was performed to assess the potential impact of exposure to contaminated surface soil on terrestrial organisms. The species evaluated for the site were the white-footed mouse, short-tailed shrew, and American robin. In addition, the terrestrial vegetation at the SS-006 site was evaluated. The results of the ecological assessment are expressed as an Hazard Quotient (HQ). An HQ of less than or equal to 1.0 indicates little potential for adverse health effects to ecological receptors.

Ecological risk calculations for an assumed scenario of resident receptors indicated that contaminants in the surface soil at the three sites present a possible risk to wildlife. This scenario estimated potential adverse health risks based on the receptors nesting and feeding exclusively at SS-006, which is probably not realistic. HQs for arsenic, lead, and barium were calculated to be between 1 and 17. HQs for other chemicals were calculated to be less than 1.0. The scenario used for this ecological risk assessment was very conservative, including the assumption that nesting of the birds was possible without proper terrestrial vegetation at SS-006 and that feeding would occur only within SS-006, when range areas for the birds are far in excess of the available feeding areas. The ecological risk assessment concludes that, based on the limited habitat available at SS-006 and the low

probability that wildlife would utilize site SS-006 exclusively, wildlife exposure to the CPCs poses very little risk.

7.0 DESCRIPTION OF THE REMEDY

The USAF has selected institutional controls as the remedy for the SS-006 soil operable unit. The institutional controls will consist of deed/lease restrictions prohibiting residential development on the site and restrictions of groundwater use. There will also be five-year reviews of the selected remedy in accordance with Section 121(c) of CERCLA.

7.1 Basis

The results of the RI indicate that there are no significant human health risks associated with soil at SS-006 given its current use and expected future use as an industrial/aviation support facility. Risk posed by contaminated soil was not evaluated for a potential future residential use of the site. Soils at SS-006 are not a source of the observed groundwater contamination.

The SS-006 site is located downgradient from IRP site FT-002, a significant source of VOCs in groundwater. Although TCE concentrations in Site SS-006 groundwater were below regulatory standards in all but one sample, it appears that the leading edge of the FT-002 groundwater contaminant plume may have begun to migrate beneath Site SS-006. Continued migration of the FT-002 plume could result in an increase in the concentrations of TCE and other FT-002 contaminants in groundwater underneath the site over time. Migration of contaminants from FT-002 will be monitored as part of Fire Training Area/Industrial Area Groundwater Operable Unit (FTA/IA GOU).

Ecological risks are possible to terrestrial wildlife from chemicals detected in surface soils. However, due to the expected future use of the area and because the area of exposed soil is limited (less than ¼ acre), wildlife exposure to contaminants in the soil is expected to be insignificant.

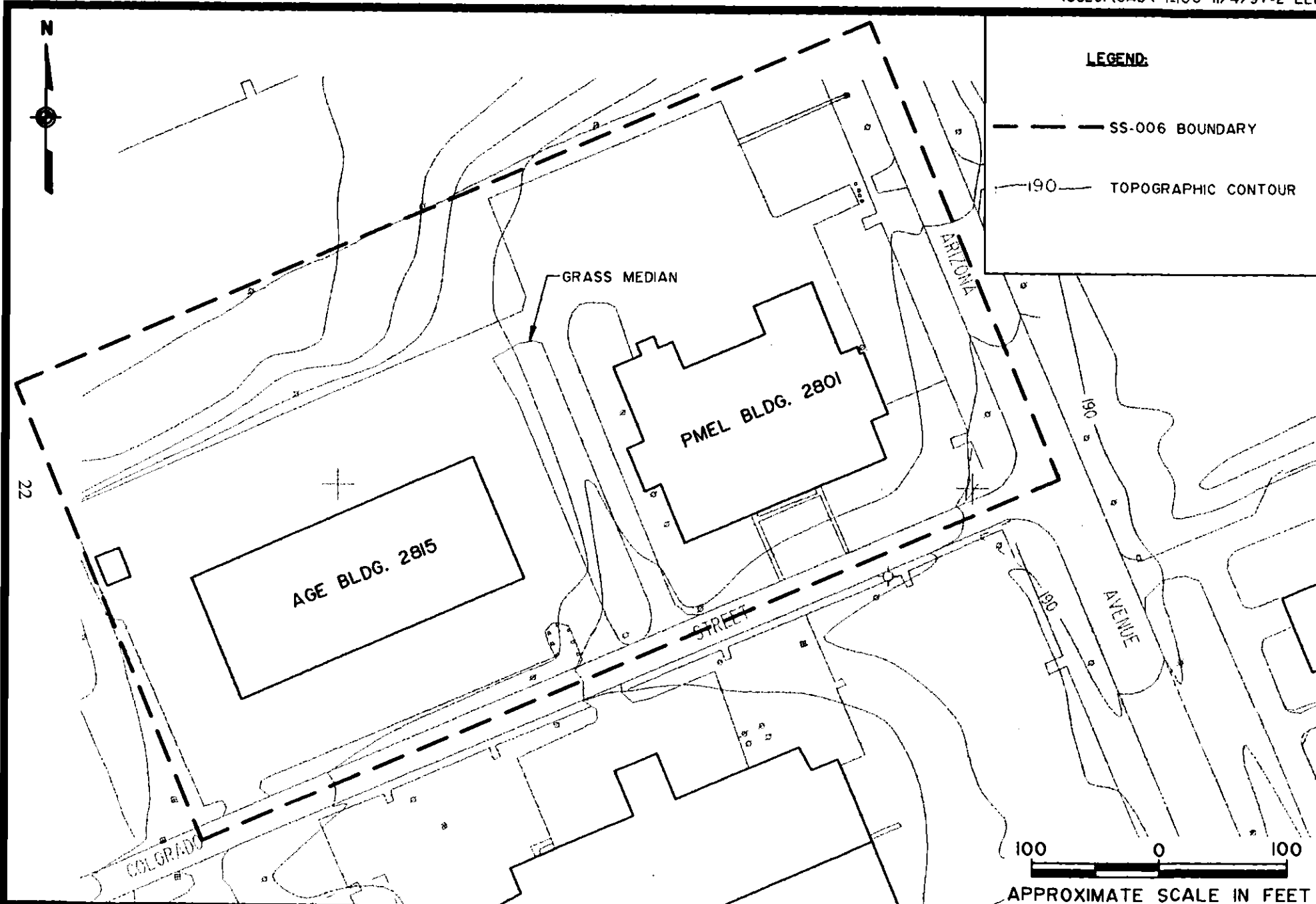
7.2 The Selected Remedy

Because no evaluation of risk posed by site soils was conducted for a residential development scenario and because contaminants, although not attributable to the site, were detected in groundwater beneath the site at concentrations exceeding regulatory standards, the following actions are included in the remedy:

- Restrictions will be imposed to limit development of the site to non-residential use.
- Prohibition of the installation of any wells for drinking water or any other purposes which could result in the use of the underlying groundwater.

An evaluation of the above institutional controls, which will be implemented through lease and deed restrictions, will be undertaken as part of the five-year review of the remedy. The area that will be subject to institutional controls is shown on Figure 8.

Groundwater remedial actions, including monitoring, will be specified in the preferred alternative for the FTA/IA GOU. The area covered by the FTA/IA GOU includes site SS-006.



8.0 STATUTORY DETERMINATIONS

The remedial action selected for implementation at SS-006 is consistent with CERCLA and, to the extent practicable, the NCP. The selected remedy is protective of human health and the environment, attains ARARs, and is cost effective. The selected remedy uses permanent solutions and alternative treatment technologies to the maximum extent practicable for this site. However, it does not satisfy the statutory preference for treatment which permanently and significantly reduces the mobility, toxicity, or volume of hazardous substances as a principal element.

8.1 The Selected Remedy is Protective of Human Health and the Environment

The remedy at SS-006 will permanently reduce the potential future risk posed to human health and the environment through institutional controls (i.e., restrictions imposed to limit the future residential development of the site and prohibit the use of groundwater as a potable supply source). These controls, as well as five-year reviews of the selected remedy, will effectively eliminate the potential risks posed by site soils.

8.2 The Selected Remedy Attains ARARs

The remedy will comply with all applicable or relevant and appropriate chemical-, action-, and location-specific requirements (ARARs). Federal and state ARARs are presented below.

Chemical-specific

Not Applicable

Action-specific

Not applicable

Location-specific

- *National Environmental Policy Act of 1969 (NEPA) (40 CFR 1501)* - The Department of the Air Force revised their protocols to update its process for compliance with NEPA. The revision provides policy and guidance for consideration of environmental matters in the Air Force decision-making process.

8.3 Other Criteria, Advisories, or Guidance to be Considered for This Remedial Action

NYSDEC soil TBCs (*TAGM #4046*) will not be met since treatment of site soils is not included in the alternative. However, TBCs are guidance rather than promulgated standards and the remedy adequately protects human health and the environment.

8.4 Cost-Effectiveness

The selected remedy is cost-effective.

8.5 Utilization of Permanent Solutions and Alternative Treatment Technologies (or Resource Recovery Technologies) to the Maximum Extent Practicable

The selected remedy uses permanent solutions and alternative treatment technologies to the extent practicable for this site.

8.6 The Selected Remedy Does Not Satisfy the Preference for Treatment Which Permanently and Significantly Reduces the Toxicity, Mobility, or Volume of the Hazardous Substances as a Principal Element

Treatment of the soil is considered impractical as risks to human health and the environment are within acceptable levels under the current and planned future land use scenarios. Consequently, the remedy does not satisfy the statutory preference for treatment as a principle element of remediation.

9.0 DOCUMENTATION OF NO SIGNIFICANT CHANGES

Plattsburgh AFB presented a Proposed Plan for the preferred alternative for SS-006 in February 1998 that consisted of institutional controls. The presented alternative includes:

- Deed/lease restrictions Limiting development of the site to industrial and non-residential use
- Deed/lease prohibition of the installation of wells for use of the underlying groundwater

The selected remedy does not differ from the preferred alternative presented in the Proposed Plan.

10.0 STATE ROLE

The NYSDEC, on behalf of the State of New York, has reviewed the various alternatives and has indicated its support for the selected remedy. It also has reviewed the RI and Proposed Plan to determine if the selected remedy complies with applicable or relevant and appropriate New York State environmental laws and regulations. The NYSDEC concurs with the selected remedy for Site SS-006. A copy of the declaration of concurrence is attached as Appendix C.

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- _____. 1991a. *Summary Report on Issues in Ecological Risk Assessment*, (EPA/625/3-91-018), Risk Assessment Forum. Cincinnati, OH: USEPA.
- _____. 1991b. *Ecological Assessment of Superfund Sites: an Overview, ECO Update*, Vol. 1, No. 2, Publication 934.0-05I. Cincinnati, OH: USEPA.

GLOSSARY

Administrative Record: A file established and maintained in compliance with Section 113(K) of CERCLA, consisting of information upon which the lead agency bases its final decisions on the selection of remedial method(s) for a Superfund site. The Administrative Record is available to the public.

Applicable or Relevant and Appropriate Requirements (ARARs): ARARs include any state or federal statute or regulation that pertains to protection of public health and the environment in addressing certain site conditions or using a particular remedial technology at a Superfund site. A state law to preserve wetland areas is an example of an ARAR. USEPA must consider whether a remedial alternative meets ARARs as part of the process for selecting a remedial alternative for a Superfund site.

Carcinogenic: Exposure to a particular level of a potential carcinogen may produce cancer.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The act requires federal agencies to investigate and remediate abandoned or uncontrolled hazardous waste sites.

Ecological Receptors: Fauna or flora in a given area that could be affected by contaminants in surface soils, surface water, and/or sediment.

Groundwater: Water found beneath the earth's surface that fills pores within materials such as sand, soil, gravel, and cracks in bedrock, and often serves as a source of drinking water.

Hazard Index (HI): A quantified expression of potentially adverse, noncarcinogenic health effects on human or ecological receptors.

Inorganic Compounds: A class of naturally occurring compounds that includes metals, cyanide, nitrates, sulfates, chlorides, carbonate, bicarbonate, and other oxide complexes.

Installation Restoration Program (IRP): The U.S. Air Force subcomponent of the Defense Environment Restoration Program (DERP) that specifically deals with investigating and remediating sites associated with suspected releases of toxic and hazardous materials from past activities. The DERP was established to clean up hazardous waste disposal and spill sites at Department of Defense facilities nationwide.

Monitoring: Ongoing collection of information about the environment that helps gauge the effectiveness of a cleanup action. Information gathering may include groundwater well sampling, surface water sampling, soil sampling, air sampling, and physical inspections.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The NCP provides the organization structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants. The NCP is required under CERCLA and the Clean Water Act, and the USEPA has been delegated the responsibility for preparing and

implementing the NCP. The NCP is applicable to response actions taken pursuant to the authorities under CERCLA and the Clean Water Act.

National Priorities List: The USEPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program.

Natural Attenuation: Processes by which contaminant levels are reduced in nature. Contaminants in soil or groundwater are reduced by aerobic (oxygen-using) bacteria, other biological activity, volatilization, and dilution/dispersion.

Noncarcinogenic: Exposure to a particular level of a potential noncarcinogen may produce adverse health effects.

Organic Compounds: Any chemical compounds built on the carbon atom, i.e., methane, propane, phenol, etc.

Polynuclear Aromatic Hydrocarbons (PAHs): A chemical compound consisting of carbon and hydrogen and containing two or more fused benzene rings. They are a group of highly reactive organic compounds found in motor oil and common components of creosotes. Many are carcinogenic.

Petroleum Hydrocarbons (PHCs): The mixture of hydrocarbons and small amounts of other substances that make up petroleum. Hydrocarbons are chemical compounds consisting of carbon and hydrogen, and are found in gasoline, naphtha, and other products produced by refining processes.

Polychlorinated Biphenyl (PCB): A compound that formerly was used as a lubricant and transformer coolant.

Proposed Plan: A public document that solicits public input on a recommended remedial alternative to be used at a National Priorities List (NPL) site. The Proposed Plan is based on information and technical analysis generated during the RI/FS. The recommended remedial action could be modified or changed based on public comments and community concerns.

Record of Decision (ROD): A public document that explains the remedial alternative to be used at a National Priorities List (NPL) site. The ROD is based on information and technical analysis generated during the Remedial Investigation, and on consideration of the public comments and community concerns received on the Proposed Plan. The ROD includes a Responsiveness Summary of public comments.

Remedial Action: A long-term action that stops or substantially reduces a release or threat of a release of hazardous substances that is serious but not an immediate threat to human health or the environment.

Remedial Alternatives: Options evaluated to address the source and/or migration of contaminants to meet health-based or ecology-based remediation goals.

Remedial Investigation (RI): The Remedial Investigation determines the nature, extent, and composition of contamination at a hazardous waste site and directs the types of remedial options that are developed in the Feasibility Study.

Semivolatile Organic Compound (SVOCs): Organic constituents which are generally insoluble in water and are not readily transported in groundwater.

Source: Area at a hazardous waste site from which contamination originates.

Superfund: The trust fund, created by CERCLA out of special taxes, used to investigate and clean up abandoned or uncontrolled hazardous waste sites. Out of this fund the USEPA either: (1) pays for site remediation when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work or (2) takes legal action to force parties responsible for site contamination to clean up the site or pay back the federal government for the cost of the remediation. Federal facilities are not eligible for Superfund monies.

Technical and Administrative Guidance Memorandum (TAGM): TAGM #4046 issued by NYSDEC Bureau of Hazardous Waste Remediation establishes chemical-specific soil cleanup objectives in the vadose zone. The document is entitled *Determination of Soil Cleanup Objectives and Cleanup Levels* (NYSDEC 1994).

Terrestrial Wildlife: Animals living on land (e.g., reptiles, small mammals, small birds, predatory mammals, predatory birds).

To Be Considered (TBCs): Federal and state policies, advisories, and other non-promulgated health and environment criteria, including numerical guidance values, that are not legally binding. TBCs are used for the protection of public health and the environment if no specific ARARs for a chemical or other site conditions exist, or if ARARs are not deemed sufficiently protective.

Volatile Organic Compounds (VOCs): Organic compounds that have a high propensity to volatilize or to change from a liquid to a gas form.

TAB

Appendix A

Transcript of Public meeting For SS-006

STATE OF NEW YORK

AIR FORCE BASE CONVERSION AGENCY

**PUBLIC MEETING BRIEFING
FOR
THE PROPOSED PLANS FOR SITES
SS-005, NON-DESTRUCTIVE INSPECTION FACILITY,
AND
SS-006, AEROSPACE GROUND EQUIPMENT FACILITY**

**taken on Thursday, February 26, 1998
at 7:00 p.m. at the Old Courthouse
Corner of Margaret and Court Streets
Plattsburgh, New York**

APPEARANCES:

MICHAEL SOREL, BRAC Environmental Coordinator

BRUCE PRZYBYL, Project Manager, URS Greiner, Inc.

**COURT REPORTERS ASSOCIATES
117 Bank Street, Burlington, VT 05401
(802) 862-4593**

1 THURSDAY, FEBRUARY 26, 1998; 7:00 P.M.

2
3 MR. SOREL: Okay. Why don't we go
4 ahead and get started? This is a public meeting for
5 the proposed plans for Sites SS-005, the
6 Non-destructive Inspection Facility, and SS-006,
7 Aerospace Ground Equipment Facility. I'd like to
8 begin the public meeting for these two proposed
9 sites.

10 For those that don't know me, I am Mike Sorel,
11 the BRAC Environmental Coordinator working for the
12 Air Force Base Conversion Agency at Plattsburgh. I
13 will be presiding over this meeting, the main
14 purpose of which is to allow the public opportunity
15 to comment on the Air Force's actions for these
16 sites.

17 Assisting me with tonight's presentation is
18 Bruce Przybyl, the project manager at Plattsburgh
19 for URS Greiner, Incorporated. We are here to
20 provide answers to technical questions you may have
21 about the remedial alternatives being considered by
22 the Air Force.

23 Also with us this evening is Bob Morse with the
24 USEPA and Jim Quinn with New York State DEC.

25 Tonight's agenda will consist of a summary of

1 data gathered at the sites and a description of the
2 preferred remedial actions. After that, we will
3 move to the most important part of this meeting --
4 the part where you provide your comments on the
5 remedial actions.

6 First, however, I need to take care of several
7 administrative details. As you can see, everything
8 being said is being taken down word-for-word by a
9 professional court reporter. The transcript will
10 become part of the administrative records for these
11 sites.

12 We would like everybody to complete the sign-in
13 sheet at the door. We will use the sheet to review
14 our mailing list for the sites.

15 At the conclusion of the presentation we will
16 open the floor to comments and questions. If you
17 have a prepared statement you may read it out loud
18 or turn it in without reading it. In any case, your
19 comments will become part of the record.

20 We have cards at the front desk for your use for
21 written comments. If you turn in any written
22 comments, please write your name and address on
23 them.

24 If you later decide to make a comment or add to
25 something you said here, you may send additional

1 comments to us at this address. We will accept
2 comments until March 18, 1998. I will show this
3 address slide again at the end of the meeting.

4 The final point is our primary purpose tonight
5 is to listen to you. We want to hear your comments
6 on any issues you are concerned about, and we will
7 try to answer any questions you may have. We want
8 you to be satisfied that the action we take will
9 properly and fully address the problems at the site.

10 Now I'd like to turn the meeting over to Bruce
11 Przybyl.

12 MR. PRZYBYL: Thank you, Mike. Good
13 evening. I'd like to talk to you today about the
14 Air Force's recommended alternatives for remedial
15 action for two Installation Restoration Program
16 Sites at the Plattsburgh Air Force Base. The
17 actions at these sites are specific to soil operable
18 units. The sites are SS-005, the Non-Destructive
19 Inspection Facility and SS-006, the Aerospace Ground
20 Equipment Facility.

21 The recommended alternative for both of these
22 sites is institutional action. The sites are
23 located very close to one another along Arizona
24 Avenue in an area that is designated for industrial
25 use or aviation support. The sites are located

1 here: This is Connecticut Avenue, Connecticut Road,
2 Arizona is along in here. This is the flight line,
3 this is the runway, this is Lake Champlain.

4 Because they are so close and have a similar
5 scope of environmental impact these two sites have
6 followed a similar regulatory path.

7 Action began at both of these sites in 1987 when
8 the site inspection was conducted at each site.
9 Each investigation consisted of a records search, a
10 soil organic vapor survey, and a few surface soil
11 samples. Because some low level organic
12 contaminants were detected at the sites, remedial
13 investigations were initiated in 1992. At SS-005,
14 remedial investigation activities consisted of 48
15 surface and subsurface soil samples and the
16 installation and sampling of three groundwater
17 monitoring wells. At SS-006, 17 soil samples and one
18 sediment sample were taken and three wells were
19 installed and sampled.

20 Because of their close proximity, the data from
21 these two sites was combined for analysis under one
22 common human health risk assessment. Data from
23 sites 005, 006 and 017 were combined into a common
24 ecological risk assessment.

25 It's important to note that the Air Force has

1 worked with New York State and the United States
2 Environmental Protection Agency in the each step in
3 the process. These agencies provided input to the
4 site investigations, remedial investigations and
5 risk assessments.

6 The state and EPA have also concurred in
7 principle regarding the remedy for Sites 005 and 006
8 as outlined in the proposed plan which is available
9 to the public at the Feinburg Library. The Air
10 Force will use this public meeting and the
11 thirty-day public comment period to solicit comments
12 from the community.

13 Is this clear? This figure depicts Site SS-005.
14 The Non-destructive Inspection Facility was used for
15 the x-ray inspection of aircraft parts. The
16 investigation at this site focused on two areas of
17 concern, including a drainage swale located adjacent
18 to the former waste accumulation area, that is in
19 here. The accumulation area handled cleaning
20 solvents and photographic development chemicals from
21 the NDI. And the second area was a former oil
22 water/separator which is located right here. Three
23 wells were installed at the site; one is located
24 here, another here, another one, the third one is
25 there at that location.

1 Some polycyclic aromatic hydrocarbons, chemicals
2 created from the incomplete burning of fossil fuels,
3 metals and two volatiles were detected above New
4 York State soil guidance which were methylene
5 chloride and xylene. The highest concentrations
6 were noted at the southeastern end of the drainage
7 swale. That is located right here. All chemicals
8 detected in groundwater were below groundwater
9 standards except aluminum, iron and magnesium.
10 These metals were not highly concentrated in the
11 soil at SS-005, so it appears that the site is not a
12 source of groundwater contamination. Some trace
13 level organics such as trichloroethene were detected
14 in groundwater but not in soil, indicating
15 contamination may be entering the site from
16 upgradient areas, and I'll touch on that again
17 later.

18 This figure depicts Site SS-006. This area, the
19 Aerospace Ground Equipment Facility was used for
20 maintenance and repair of flightline power carts,
21 and that is this building right here. Precision
22 tools utilized in the maintenance of aircraft were
23 used in the adjacent building, Building 2801 right
24 there.

25 The main area of concern at this site is a

1 drainage swale located between the two buildings
2 right in this area here. This swale accumulated
3 runoff from a waste accumulation point located
4 adjacent to the swale right here and also from paved
5 areas where fuel and chemicals were handled and
6 stored. These include the waste accumulation
7 storage shed which would be right here which was
8 decontaminated in 1997, fueling pumps over here
9 which were removed under the State Spill Response
10 Program, a satellite accumulation point located
11 adjacent to 2801 right there, and oil/water
12 separator holding tanks which were ultimately
13 removed under the state's program and those are
14 located here.

15 Two small JP-4 spills are documented to have
16 occurred on the pavement south of 2815 right here.

17 In the soil samples taken no chemicals were
18 detected above New York State guidance except for
19 zinc in one sample.

20 Chemicals were detected in groundwater, most
21 notably trichloroethene, but they were not found in
22 soil at the site. This indicates that groundwater
23 contamination may be entering the site from
24 upgradient as with SS-005.

25 This map depicts the groundwater flow pattern in

1 the central portion of the base. Recently the Air
2 Force has completed a modeling effort describing the
3 current contamination moving from the FT-002 site
4 and predicting its future impact on downgradient
5 areas.

6 The study revealed that contaminants, most
7 notably TCE, are moving from FT-002 towards Sites
8 SS-005 and SS-006. Here is the FT-002 site and here
9 is a slope path from the northern portion of the
10 FT-002 site headed directly toward Site SS-005 and
11 I'd say Site SS-006 is right on the northern edge of
12 the plume that receives a little more sporadic
13 influence from the FT-002 site. These sites are
14 being affected currently and the model predicts that
15 the concentrations of the contaminants are expected
16 to increase slightly in the future.

17 Risk to human health from site contaminants in
18 soil was assessed given three scenarios. The
19 current use scenario assumed exposure to site soils
20 by a landscape worker. Future use was broken into
21 two phases: A construction phase under which workers
22 are exposed to excavating soil, and an industrial
23 use phase under which industrial workers are exposed
24 to site soils and are drinking groundwater from the
25 site.

1 In all scenarios the non-cancer hazard indices
2 and cancer risks were calculated to be within
3 acceptable limits. The hazard indices being noted
4 here are all less than one which is the upper
5 acceptable limit. The cancer risks noted here are
6 all less than ten to the minus four which again is
7 the upper acceptable limit.

8 In addition, the ecological risk assessment
9 indicated that no terrestrial organisms are
10 threatened by site contaminates.

11 And now I will talk about the specifics of the
12 selected remedy. The proposed remedial action at
13 both sites consists of the same identical elements
14 and these are:

15 Restrictions will be imposed on the development
16 of the site of the facilities that support
17 industrial non-residential use. Because of the risk
18 assessment evaluated scenario is consistent with a
19 planned industrial use of the sites, the Air Force
20 will restrict development of sites to industrial
21 use.

22 Second, restrictions will be imposed to prohibit
23 the installation of any wells for drinking water or
24 any other purposes which could result in the use of
25 the underlying groundwater. Although the

1 contamination groundwater in Sites 005 and 006 is
2 not currently a problem, contaminates from Site
3 FT-002 may increase in concentration beneath Sites
4 005 and 006, and therefore I believe the Air Force
5 is prudent to institute groundwater restrictions.

6 Last, an evaluation of the institutional
7 restrictions which will be implemented through lease
8 and deed agreements will be undertaken as part of
9 the five-year review of the remedy to insure that
10 human health and the environment is continuing to be
11 protected. And that is the end of the discussion.

12 MR. SOREL: Okay. At this point I'd
13 like to open up the meeting for comments or
14 questions. Since everything being said here tonight
15 is being taken down, please state your name for the
16 record before you make your statement. Any
17 questions from anybody?

18 Okay. Since we have no questions if you should
19 later decide to make additional comments on the
20 proposed action alternatives please mail them to
21 this address by March 18th, 1998. Also I would like
22 to add that the proposed plans are available for
23 review at the information repository located in the
24 Special Collections at the Feinburg Library at SUNY
25 Plattsburgh.

1 That concludes this meeting. Thank you for
2 coming.

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4 (The hearing concluded at 7:20 p.m.)
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C E R T I F I C A T E

I, Carol A. Boone, Notary Public and Court Reporter, hereby certify that the foregoing pages, numbered 2 through 12 inclusive, are a true and accurate transcription to the best of my ability of the public hearing in the matter of Plattsburgh Air Force Base Conversion, taken before me on the 26th day of February, 1998, at Old Court House, Corner of Margaret Street and Court Street, Plattsburgh, New York, in this matter now pending.

I further certify that I am not related to counsel, counsel's law firm, nor any party to the case in this matter, nor do I have any interest in the outcome of the case.

Carol A. Boone

Carol A. Boone, Court Reporter

TAB

Appendix B
Responsiveness Summary



DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

March 18, 1998

MEMO FOR RECORD

SUBJECT: Responsiveness Summary: Public Comment Period for Proposed Plans at
IRP Site SS-005, Non-Destructive Inspection Facility, and IRP Site SS-006,
IRP Site SS-006, Aerospace Ground Equipment Facility

A. OVERVIEW

IRP Site SS-005: The Non-Destructive Inspection Facility (NDI) is located in the eastern portion of the base, within the industrial area. The facility was used for the non-destructive x-ray inspection of aircraft parts.

A waste accumulation area formerly was located at SS-005. Materials used and stored at this facility included PD-680 cleaning solvent, engine oil, 1,1,1-trichloroethane, developer, dye penetrant fluid, remover, and photographic fixer solution. The fixer solution was treated by a silver recovery unit before disposal.

A Site Inspection (SI) was conducted at SS-005 in 1987. A Remedial Investigation (RI) was performed from October 1992 to February 1993. Findings showed that chemical contaminants are present at relatively low levels in soil at SS-005. These chemicals do not pose a significant threat to human or ecological health under current and planned future non-residential land use scenarios.

The USAF has selected institutional controls as the preferred alternative for the SS-005 soil operable unit. The institutional controls will consist of deed restrictions prohibiting residential development on the site and restrictions of groundwater use. There will be a five-year review of the selected remedy in accordance with Section 121(c) of CERCLA.

IRP Site SS-006: The Aerospace Ground Equipment Facility (AGE) is located in Building 2815 in the east-central portion of Plattsburgh AFB, approximately 600 feet east of the flightline. Building 2801, the Weapons Systems Management and Maintenance Facility, is included in this site.

Constructed in 1980, the AGE building (Bldg. 2815) was utilized for the maintenance and repair of ground power carts that provided electrical and pneumatic power to parked aircraft. Building 2801 was constructed in 1956 and housed the Precision Measurement Equipment Laboratory (PMEL), where aircraft maintenance tools were calibrated. Other flightline-related offices were also housed in Building 2801.

SS-006 is also the location of one of the hazardous waste accumulation points on the base that accepted hazardous waste from satellite accumulation points at the AGE and at Building 2801 from 1989 until the base closed in 1995. There were no reported spills in this area. In addition, two 5,000-gallon underground storage tanks (USTs), reportedly used to store diesel fuel, formerly were located west of the AGE, and a former oil/water separator was located near the southern wall of the AGE. A former 550-gallon underground holding tank was associated with this separator. Former filling pumps were also located at the AGE.

A Site Inspection (SI) was conducted at SS-006 in 1987. A Remedial Investigation (RI) was performed from October 1992 to February 1995. Findings showed that chemical contaminants are present at relatively low levels in soil at SS-006. These chemicals do not pose a significant threat to human or ecological health under current and planned future non-residential land use scenarios.

The USAF has selected institutional controls as the preferred alternative for the SS-006 soil operable unit. The institutional controls will consist of deed restrictions prohibiting residential development on the site and restrictions of groundwater use. There will be a five-year review of the selected remedy in accordance with Section 121(c) of CERCLA.

B. PUBLIC MEETING & PUBLIC COMMENT PERIOD

A Public Meeting was held on the proposed plans for SS-005 and SS-006 on February 26, 1998, at 7:00 p.m. It was held at the Old Court House in the City of Plattsburgh, County of Clinton, NY. A prepared statement was read by Mr. Michael D. Sorel, PE, the BRAC Environmental Coordinator for the Air Force Base Conversion Agency (AFBCA). Mr. Bruce Przybyl of URS Greiner, Inc., detailed the proposed plans for the audience. The floor was then opened to the public for questions and comments. Concluding the meeting was a statement by Mr. Sorel that additional comments could be sent to the Air Force. As advertised in the *Plattsburgh Press-Republican*, the public comment period ran from February 17, 1998, to March 18, 1998. The Public Meeting was recorded by a court reporter, Ms. Carol Boone of Court Reporters Associates, Burlington, VT.

C. SUMMARY OF COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND AGENCY RESPONSES

A memorandum dated March 12, 1998, was received from Mr. John Huru, the AFBCA-DA Plattsburgh Site Manager. Mr. Huru felt "that the word 'industrial' should be deleted from the action regarding development of the site. Restrictions should be imposed to prohibit residential use of the site only. Any other use restriction is unjustified and would unduly impact the local redevelopment agency."

The USAF will change the wording from, "industrial, non-residential use" to "non-residential use."

From the time of the Public Meeting until the deadline of March 18, 1998, no further questions or comments were received by the Air Force regarding the proposed plans for SS-005 and SS-006.


MICHAEL D. SOREL, PE
BRAC Environmental Coordinator

Attachment:
Memorandum from AFBCA-DA/Plattsburgh



DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY


March 12, 1998

MEMORANDUM FOR AFBCA/DA PLATTSBURGH
ATTN: MR. MICHAEL D. SOREL, PE
BRAC Environmental Coordinator
426 US Oval Suite 2200
Plattsburgh NY 12903

FROM: AFBCA/DA Plattsburgh
426 US Oval Suite 2200
Plattsburgh NY 12903

SUBJECT: Proposed Plans, SS-005 and SS-006

I have reviewed the Proposed Plans for Sites SS-005 and SS-006 and have a comment regarding the preferred alternative. I feel that the word "industrial" should be deleted from the action regarding development of the site. Restrictions should be imposed to prohibit residential use of the site only. Any other use restriction is unjustified and would unduly impact the local redevelopment agency.


JOHN D. HURU, PE
Site Manager

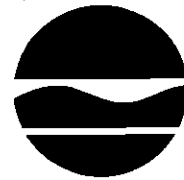
TAB

Appendix C
NYS DEC Concurrence Letter

Bob Wing → *DBA M-252*

New York State Department of Environmental Conservation

1152 55



John P. Cahill
Commissioner

Division of Environmental Remediation

Bureau of Eastern Remedial Action, Room 242

50 Wolf Road, Albany, New York 12233-7010

Phone: (518) 457-4349 FAX: (518)

March 31, 1998

Mr. Richard Caspe
Director
Emergency & Remedial Response Division
U.S. Environmental Protection Agency
Region II
290 Broadway
New York, NY 10007-1866

Dear Mr. Caspe:

Re: Records of Decision
SS-005 and SS-006
Plattsburgh Air Force Base - ID No. 510003

In response to the Records of Decision (RODs) for SS-005 (Non-Destructive Inspection Facility) and SS-006 (Aerospace Ground Equipment Facility) submitted and signed by Assistant Secretary Rodney A. Coleman of the United States Air Force, I wish to concur with the remedial action plans as put forth in the RODs. The remedy at each of these sites will be institutional controls including:

- Lease/deed restrictions imposed to limit development of the site to non-residential use;
- Prohibition on the installation of any wells for the use of site groundwater.

I understand that the adequacy of this remedy to protect human health and the environment will be reviewed during the five-year site reviews.

Sincerely,

Michael J. O'Toole, Jr.
Michael J. O'Toole, Jr.
Director

Division of Environmental Remediation

c: R. Coleman, USAF
M. Sorel, USAF
R. Wing/R. Morse, USEPA-Region II
G. Anders Carlson, NYSDOH

DIRECTOR'S OFFICE

1998 APR -6 AM 3:10

RECEIVED
DIVISION OF ENVIRONMENTAL REMEDIATION
APR 7 1998